

Post-Field Overview

- DNR Garmin Program
- DNR Garmin Extension in ArcView

Managing GPS Data
Editing GPS & GIS Data
Attributing Data
Map Making

Review of ArcView Terminology

View =

Window to display (and sometimes edit)
geographic features (as themes)

Shapefile =

ArcView data layer

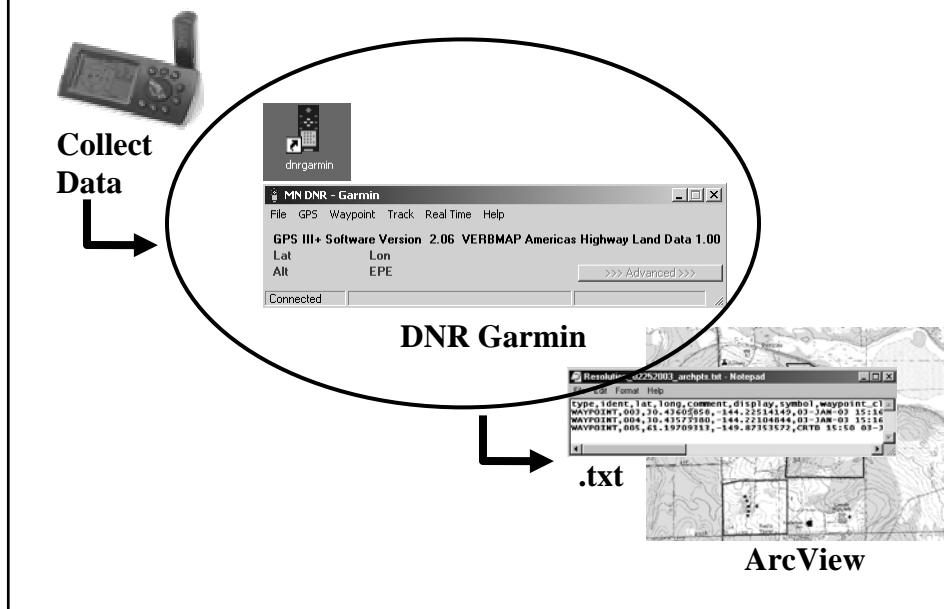
Theme =

Single data layer (e.g., Shapefile) added to View

Layout =

Window to display View and graphics for map
creation

DNR Garmin: Installation and Setup



Objectives

- Overview of DNR Garmin
- Install DNR Garmin
 - Requirements
 - Installation Steps

DNR Garmin

- Overview
 - Developed by Minnesota Dept. of Natural Resources
 - Integrates ESRI's ArcView 3.x software with all types of Garmin brand GPS receivers.
 - Comprised of a Visual Basic (VB) program and an ArcView extension
 - VB: DNRGarmin program (*.exe) communicates with GPS via a serial port allowing for transfer of waypoints and tracks
 - ArcView Extension: Allows for working in ArcView for shapefile / graphic creation (shapefiles in projection and datum of choice)

DNR Garmin

- Overview cont.
 - Can work independently of ArcView 3.x, data saved as text files (*.txt) or shapefiles (projected OR unprojected).
 - Available from Internet or your Training CD
 - Training CD: /Software/DNRRGarmin
 - Internet*

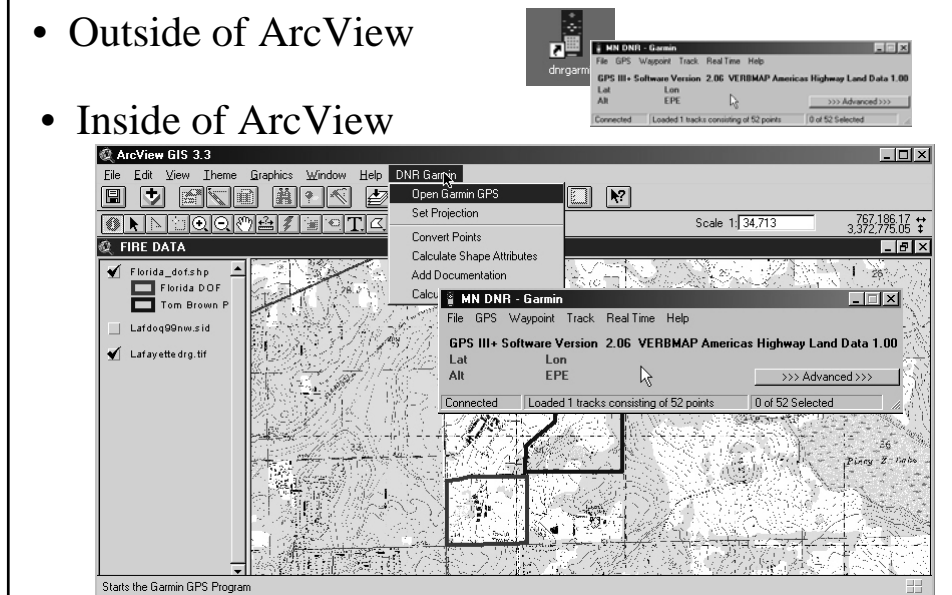
TIP <http://www.dnr.state.mn.us/mis/gis/tools/arcview/extensions/DNRRGarmin/DNRRGarmin.html>

DNR Garmin Functionality Highlights

- Download / Upload Waypoints & Tracks (& routes)
- Convert Waypoints to Points
- Point (shapefile or graphic) to GPS Waypoint
- Convert Tracks to Points, Lines or Polygons
- Point theme to Lines or Polygons
- Calculates Area, Perimeter, Length
- Allows for Feature documentation
- Real-Time Tracking
- Convert Line/Polygon Shapefiles back to Tracks
- Calculates Circular Error Probable (CEP)
- Creates GPS Screen Shots

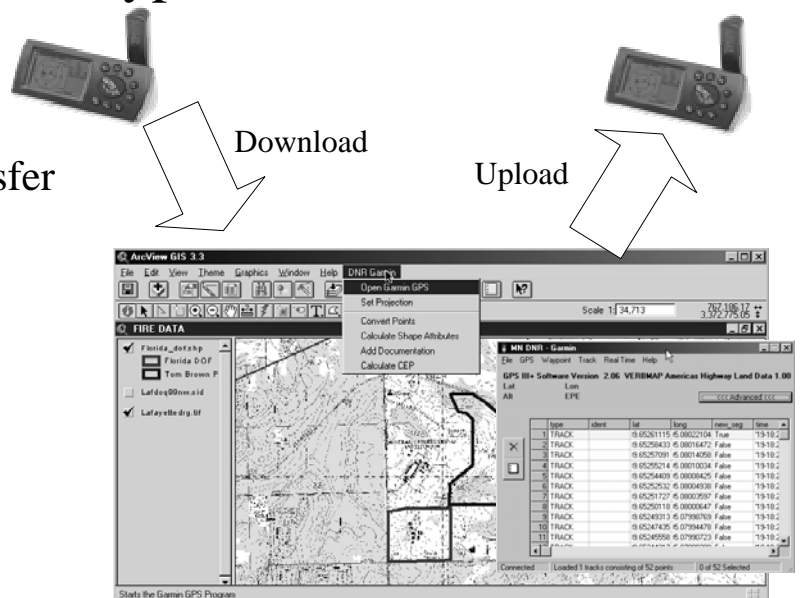
How it Works

- Outside of ArcView
- Inside of ArcView



Typical Use on a Fire

- Data Transfer



Installation Requirements

- Hardware:
 - Garmin GPS III Plus Receiver
 - PC (Windows 95 or higher) with available Serial Port (COM Port)
 - Garmin PC Download Cable
- Software
 - ArcView 3.X
 - DNR Garmin

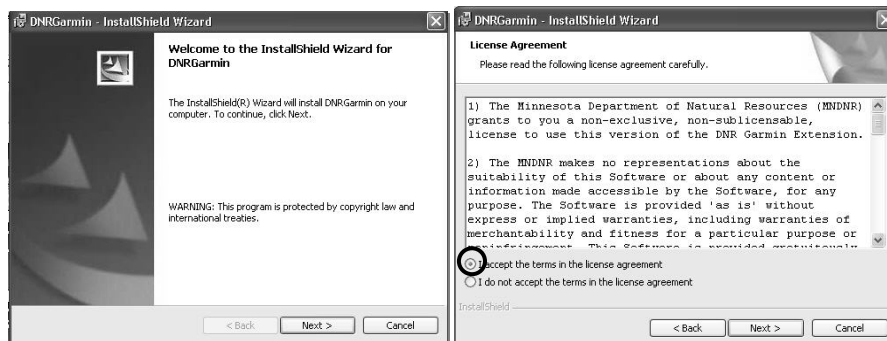
Installation Requirements

- Ensure ArcView 3.x is functioning properly
 - Go To: Start Button | Programs | Esri | ArcView3 | ArcView
 - Confirm ArcView runs
 - Exit Program
- Proceed to DNR Garmin Installation



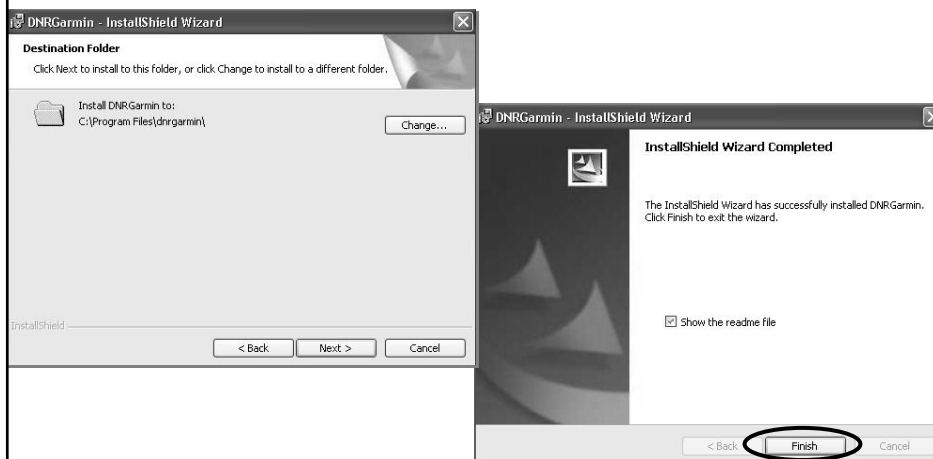
DNR Garmin Installation

- Installation
 - Navigate to /Software2004/DNRRGarmin4.0. Find on Training CD or local copy
 - Double-Click dnrgarmin4setup.exe



DNR Garmin Installation

- Installation Continued



Installation

- Download DNR Garmin cont.
 - Open a Windows Explorer window and navigate to where you saved the software
 - **C:\Program Files\dnrgarmin**
 - Open another Windows Explorer window and navigate to the **c:/esri/av_gis30/arcview/ext32**
 - In the dnrgarmin folder select **dnrgarmin.avx**, copy and paste to the **ext32** folder

Installation

- Download DNR Garmin cont.
 - Move up one folder from **c:/esri/av_gis30/arcview/ext32** to **c:/esri/av_gis30/arcview/help**
 - In the dnrgarmin folder select **DNRGarmin.chm**, copy and paste to the **help** folder

DNR Garmin Summary

- Overview of DNR Garmin capabilities
- Installed 10 files including ArcView extension and help file in
- Installed the DNR Garmin program on the PC desktop
- Congratulations!

